

ABSTRACT OF THE DISCLOSURE

5 A multi-chip system is disclosed for distributing the convolution process. Rather than having multiple convolution chips working in parallel with each chip working on a different portion of the screen, a new design utilizes chips working in series. Each chip is responsible for a different interleaved region of screen space. Each chip performs part of the convolution process for a pixel and sends a partial result on to the next chip. The final chip completes the convolution and stores the filtered pixel. An alternate design
10 interconnects chips in groups. The chips within a group operate in series, whereas the groups may operate in parallel.